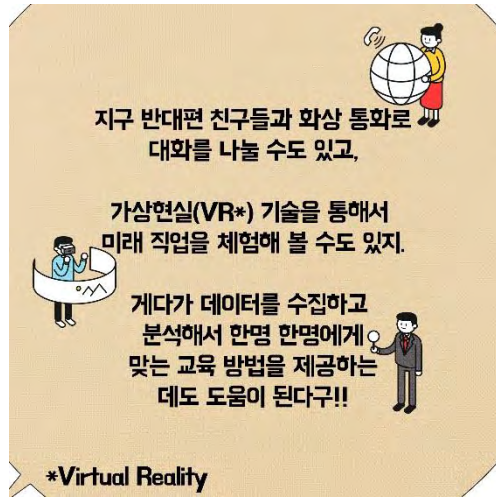


국내 ICT 활용 교육 우수사례 웹툰

제작: 교육 ICT 워킹그룹

우리말



저는 시골 중학교 영어 선생님입니다



우리학교는 아이들의 수가 아주 적어요



학급 진급에 따른 반이동, 교사 이동은 없어요



요 순진한 친구들에게 무엇을 해주면 좋을까 고민하다가



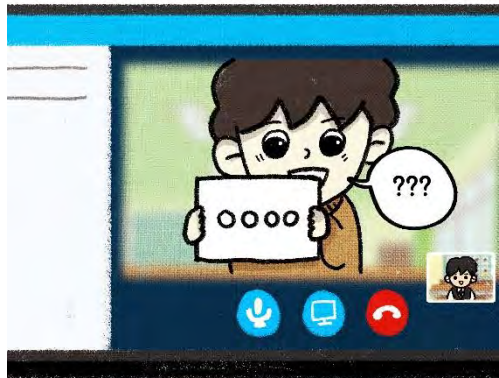
온라인 화상통화 어플을 사용해 해외의 학교와 원격 화상통화를 했어요!



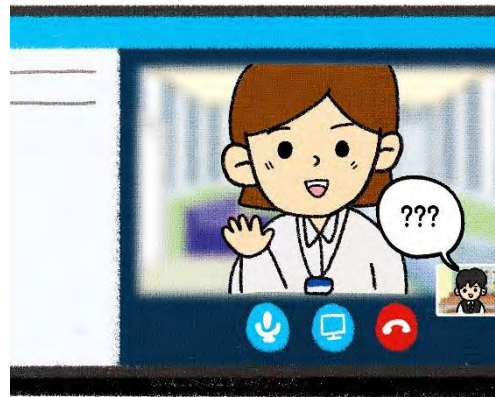
해외 학생들과 문화교류로 해보고



다른 소규모 학교 학생들과 영어독서 골든벨도 해보고



화상으로 직업 인터뷰도 해봤어요



시골은 대중교통이 불편해서 아이들이 온라인으로 만나 협동 프로젝트를 하기도 했어요



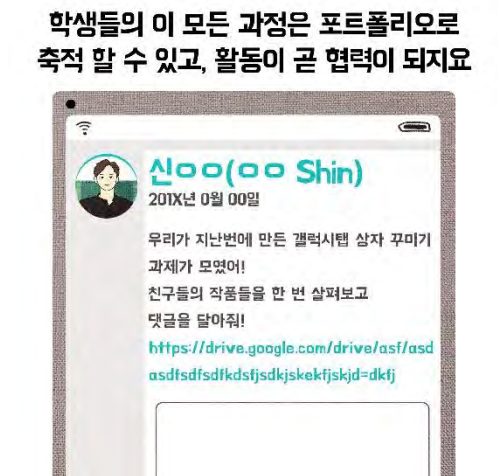
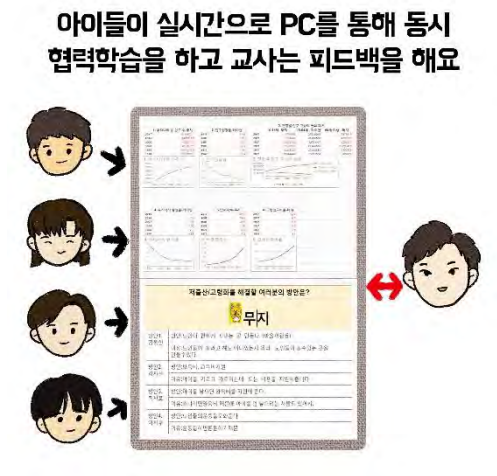
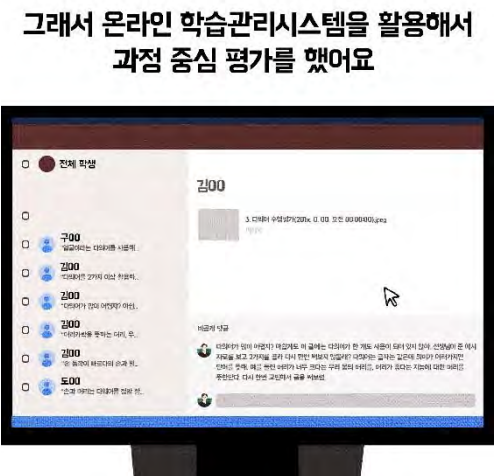
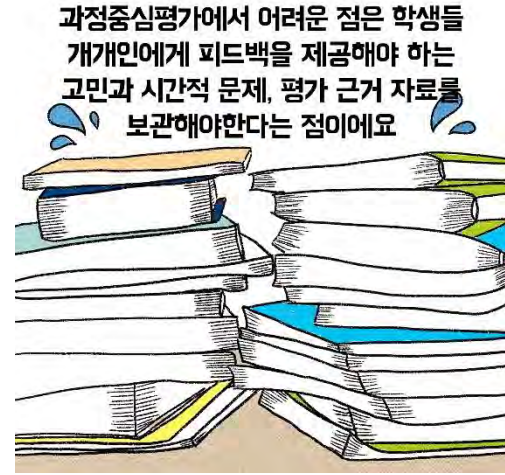
온라인 기반 화상 수업을 통해 아이들에게 새로운 경험과 문화교류 기회를 줄 수 있다고 생각합니다.





우선 아이들을 줄세우는 결과중심평가에서 과정에 중심을 두는 과정중심평가를 하기로 했어요

결과중심평가	과정중심평가
- Focus on the final result	- Focus on the Procedure of learning
- Easy to rank from 1 to 100	- Focus on students' growth not rank
- Hard to see the procedure of thinking	- Easy to see students' sequence of thinking
- Efficient to judge students' ability	- Easy to see students' Various Competence
- Hard to see Various Competence	- Give students chances to improve their task
- Class activity < Result of test	- Class activity > Result of test



온라인 학습관리시스템을 활용해서 과정 중심 평가를 가장 놀라웠던 점은

우리반 아이들의 자기주도적 학습 역량이 매우 늘었다는 점이에요



안녕하세요~
저희는! A초등학교! 4학년! 1반!
김초롱! 박다정! 입니다!



저희는 환경문제 해결에 관심이 많아요



그런데 저희가 할 공부는 너무 많아요.
문제집도 많이 풀어야 하고요



그런데 학교수업은 기대가 되요!
태블릿 PC를 활용하면서 공부를
배우고 새로운 활동들을
많이 할 수 있기 때문이에요



어느 날 선생님께서



저희에게 특별한 프로젝트를
제안해 주셨어요

업사이클링
Up-cycling



업사이클링
(Up-cycling)

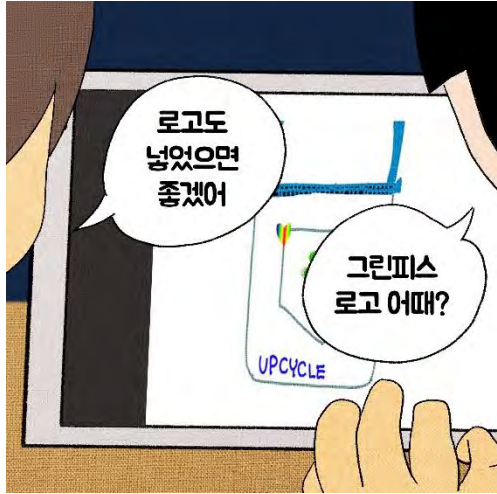
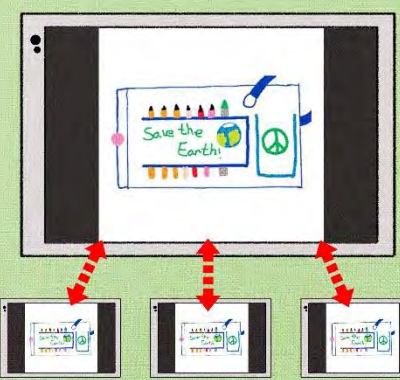
업사이클링이란
버려지는 제품을
활용해 새로운
제품으로 만드는 것이예요.
업사이클링 제품을
디자인 해봅시다!



우선 우리는 팀을 구성해
업사이클링 디자인 시안을 만들었습니다



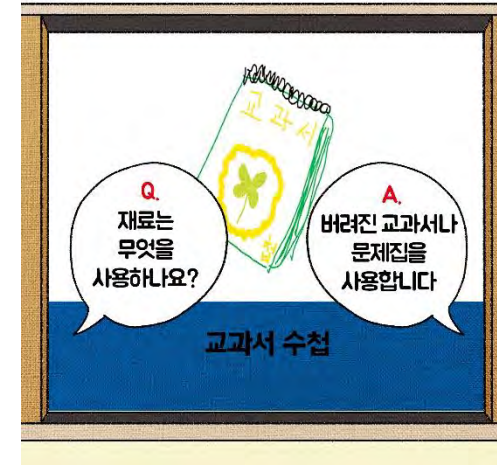
태블릿 PC를 활용하여 실시간으로
도안을 완성했어요



궁금한 것이나 참고할 자료는
바로바로 검색해봤어요



각 팀이 디자인한 업사이클링
제품 프리젠테이션 했습니다



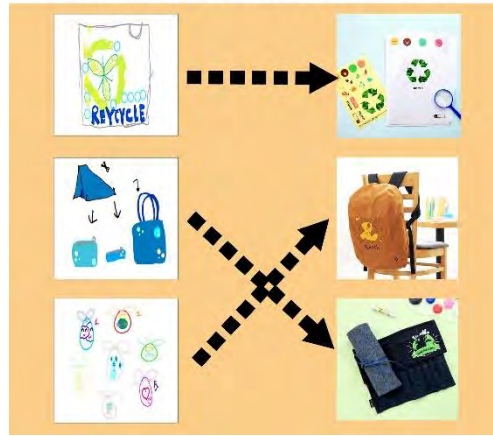
그동안 공부했던 지식들을 총동원한
너무 즐거운 수업이었어요!



그리고 즐거운 소식!



꿈이 이루어진다면 이런거 아닐까요?!



우리가 교실에서 머리를 맞대고 연구한
결과가 많은 사람에게 도움이 될 수 있다는
것을 경험했어요



많은 사람들을 위해 다음은
어떤 프로젝트를 해볼까요?!



UN 인권선언(1948)은
“모든 사람들은 인종, 종교,
성별, 언어, 장애 등과 관계없이 교육을
받을 보편적 권리가 있다”고 말해요



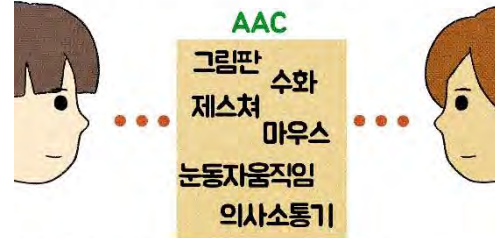
장애로 인한 의사소통의 어려움을
겪는 사람들은 교육의 참여와 접근에
제한이 있어요



ICT는 장애인의 의사소통을
보완하여 장애인의 교육에
활용되고 있어요

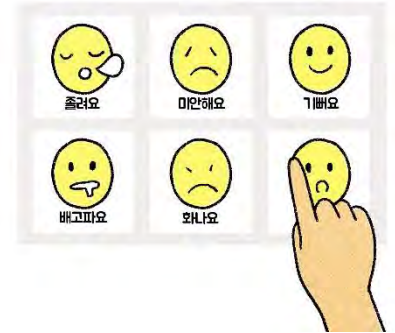


대표적인 사례로
보완대체의사소통(AAC)이 있어요.
AAC는 의사소통이 어려운 사람에게
이를 보완하고 대체하는
여러 의사소통 방법을 말해요

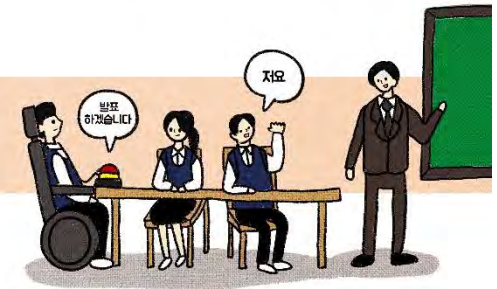


*AAC : Augmentative Alternative Communication

주로 신체적 행동과 상징을 이용하거나
AAC 소프트웨어 프로그램과 하드웨어를
이용하여 의사소통을 해요



학교에서는 대답하기 위해 손을 들 수
없는 학생들을 위해 소리나 불빛이 나는
스위치를 누르게 하거나



AAC 앱을 통해 수업에서 사진이나
그림과 같은 상징으로 메시지를
전달할 수도 있어요



장애 유무와 상관없이
모든 사람은 교육 받을 권리와
표현할 권리가 있어요



정보통신기술(ICT)은
장애인의 의사소통을 지원하여



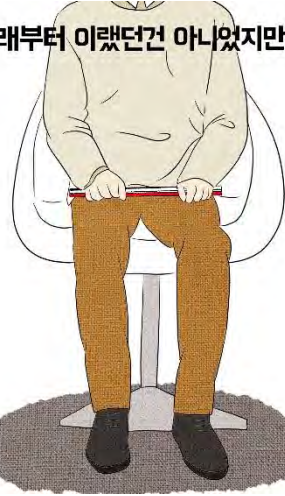
장애인의 교육 받을 권리와
표현할 권리를 보장하는데
기여하고 있어요



안녕하세요!
저는 시력이 많이 안좋아요.
거의 볼 수 없지요.



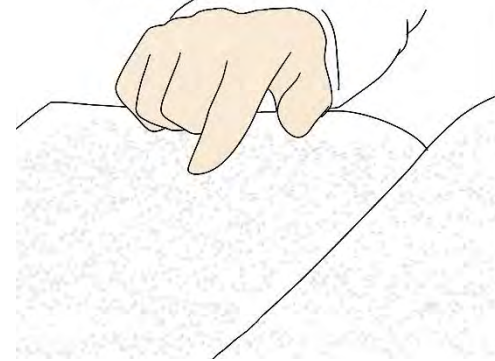
원래부터 그랬던 건 아니었지만요.



저는 어렸을 때부터 책 읽는 것을
정말로 좋아했어요.



시력이 나빠진 후에는
점자를 통해 책을 읽었어요.
물론 많은 인내가 필요했지만요.



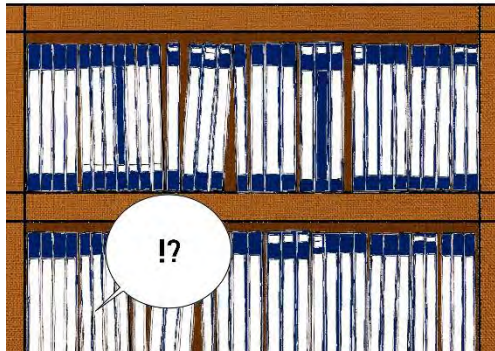
대학에 들어오고 난 이후에는
시험이나 취업 준비를 위해 논문을 읽고
싶었지만, 음성이나 점자로 제공되는
학술 논문은 많지 않았어요.



저같은 사람을
'독서 소외인' 이라고 부르대요.
갑자기 우울해졌어요.



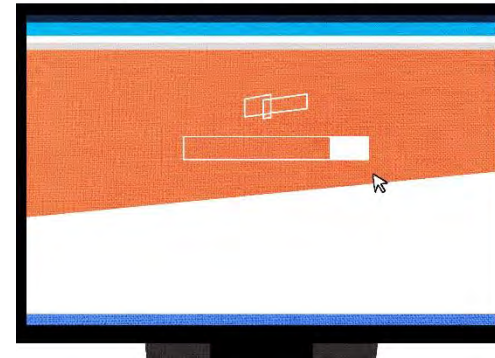
그런데 저와 같이 일반 도서관 이용이
어려운 시각장애인들이 논문을 손쉽게
읽을 수 있는 방법이 생겼대요.



글자를 음성으로 변환하는
음성변환 서비스(Text To Speech)를
활용한
'마음으로 듣는 논문 서비스'를
통해서요!

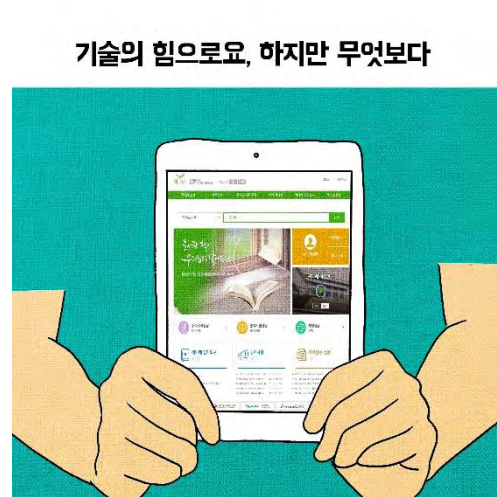


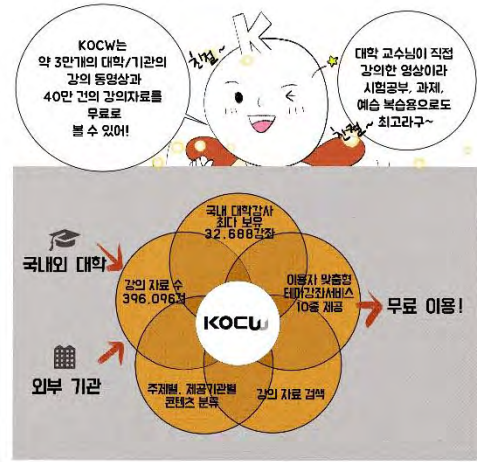
RISS(학술연구정보서비스)와
국립장애인도서관에 등록된 이용자들이라면
RISS에서 사용이 가능해요.



제가 논문을 보.. 아니 듣고 있어요!



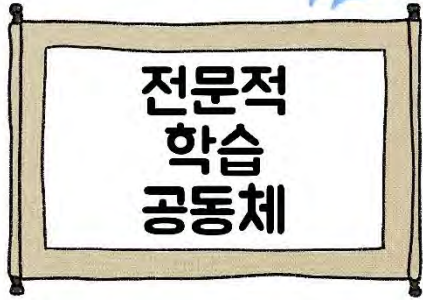




Lortie(1975)는 교직에는 개인주의, 보수주의, 현재주의라는 교직문화가 있다고 하면서, 전문적학습공동체를 통해 이를 극복하려 했습니다



하지만 교사들이 교실을 넘어 실제로 소통하기는 쉽지 않았습니다.



하지만 지금은 ICT의 발전으로 교사들이 온라인을 기반으로 모임을 하기 쉬워졌습니다.



전국 교사들의 훌륭한 수업사례와 교육콘텐츠가 온라인을 통해 공유되기 시작했습니다.



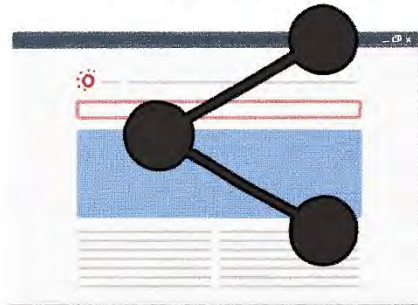
ICT의 발전으로 인해 교사들이 온라인을 통해 함께 공부하고 성장하는 학교 밖 전문적학습공동체가 발전하고 있습니다.



그중에서 참쌤스쿨은 디지털교육콘텐츠를 만들어 공유하는 전국단위 교사모임입니다



현장 교사들이 스스로 교육자료를 제작하여 온라인을 통해 공유하는 것을 목표로 약 90여명의 선생님이 온라인에서 활동하고 있습니다



교육콘텐츠 제작은 철저하게 온라인으로 이루어집니다



직접 만나서 작업하지 않아도 충분히 협업이 가능하게 됐습니다.

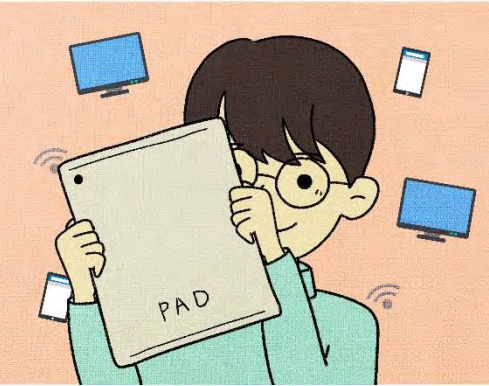
참쌤스쿨의 교육콘텐츠는 전국의 선생님들이 내려받아 재구성하여 활용합니다.



참쌤스쿨 같은 온라인 기반의 학교 밖 전문적학습공동체가 더 많아졌으면 좋겠습니다.



우리나라 교사들의 ICT 활용 능력은 세계 최고 수준이죠



대한민국 교육부는 생각했습니다 우리나라의 ICT 활용 교육을 개발도상국에 전파하면 어떨까?



교육부는 이러한 세계화 사업으로 아시아, 아프리카, 중남미의 15개 개발도상국에 “첨단 ICT활용 시범교실”을 구축하여 운영하고 있습니다



첨단교실을 활용해 학생들과 교사들의 교육 격차를 줄일 수 있도록



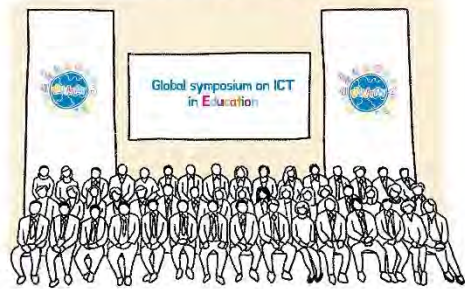
개발도상국 현지 학교 교사들을 대상으로 우리나라 교사가 직접 찾아가는 연수를 하고



개발도상국 학교 교사들을 한국으로 초청하여 연수도 합니다



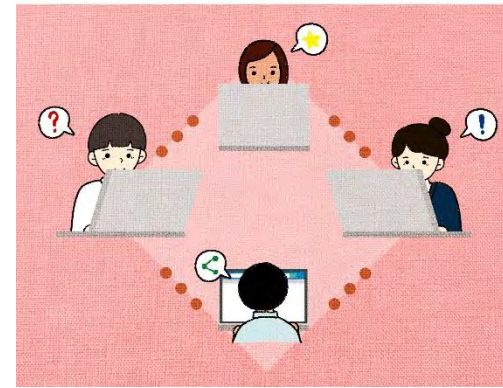
정책 개발 지원을 위해 교류협력국 정부 관계자를 Global Symposium on ICT in Education에 초청하는 행사도 했습니다



이러한 노력들로 15개 개발도상국에 첨단 ICT 교육 환경을 제공하고 학생들의 정보 접근성을 증대시키고



현지 교사들의 ICT 활용 교육 역량을 개발하였습니다



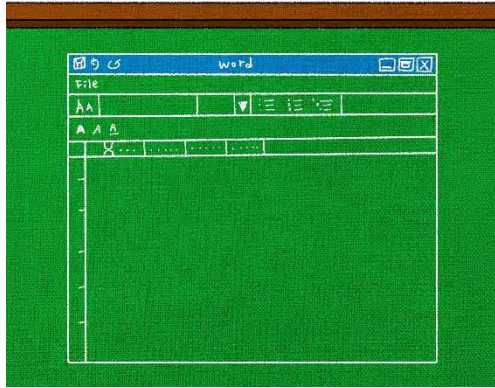
“첨단 ICT활용 시범교실 구축·운영사업”은 글로벌 지식정보격차 해소에 기여하고 있습니다



전기 공급이 불안정했던 학교가...



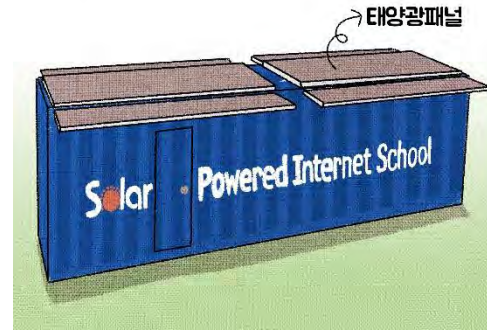
컴퓨터 시설이 없어 직접 워드 프로그램을 그려 수업을 진행하였던 선생님이...



우리나라의 "솔라스쿨 활용 교육 지원 사업"을 통해, ICT 활용 교육이 가능하게 되었어요



대한민국 교육부는 삼성전자와 협력하여 노트북, 스마트TV, 학습콘텐츠 등으로 구성된 "솔라스쿨"을 설치했어요



교육부 이러닝 세계화 사업의 일환으로 2013년부터 현재까지 아프리카 12개 교료협력국에 설치되었습니다



그 중 한 곳인 우간다에서는 현지대학과 협력하여 매년 현지 연수를 진행하고, 교사 간 전달 연수도 활발히 진행중이에요



아프리카에서 친환경 에너지를 통해 컴퓨터 그룹 수업 진행이 가능해지고



학생들의 학습에 대한 흥미와 컴퓨터 활용능력이 높아졌고



교사들의 ICT 활용 역량이 강화되었습니다

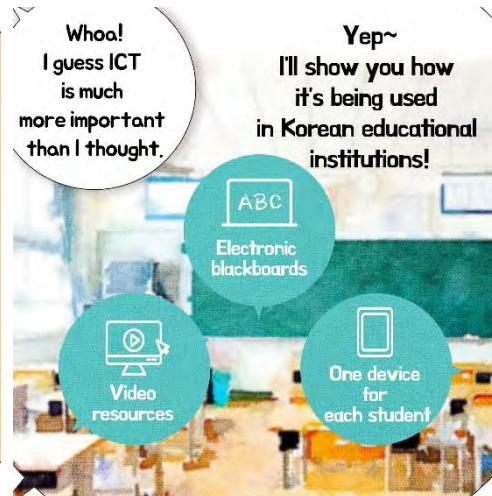
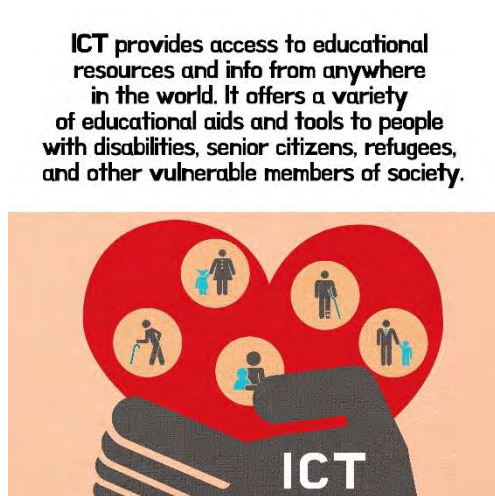
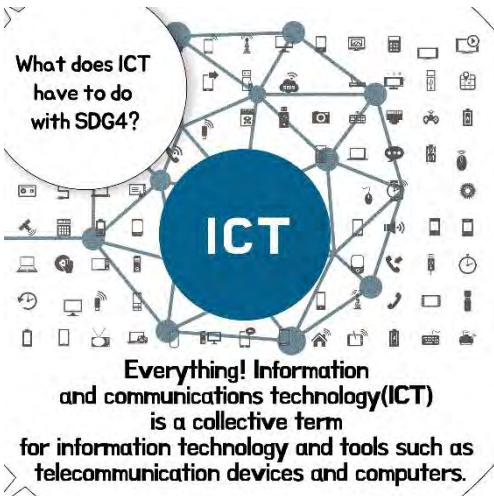
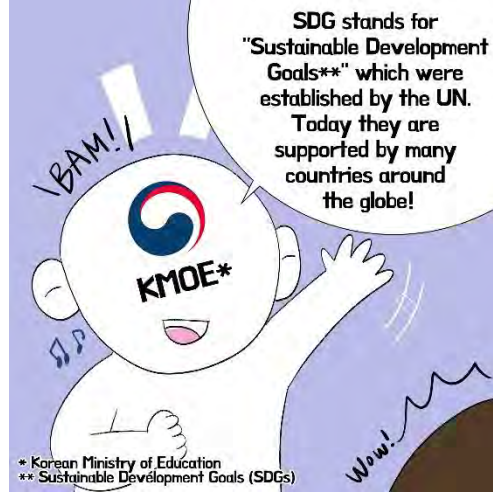


솔라스쿨을 통해 지속적인 ICT 학습 환경이 제공되고 있어요



09

09



I teach in a middle school in a small village.



Once assigned, students remain in the same classroom with the same teacher for the whole school year.



There aren't many children in my class.



So, I thought... what can I do for my sweet students?



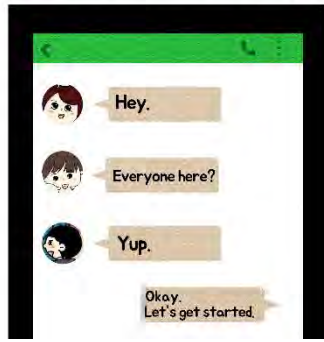
Then I had a great idea. Using an online video chat application, we could talk with children in schools around the world!



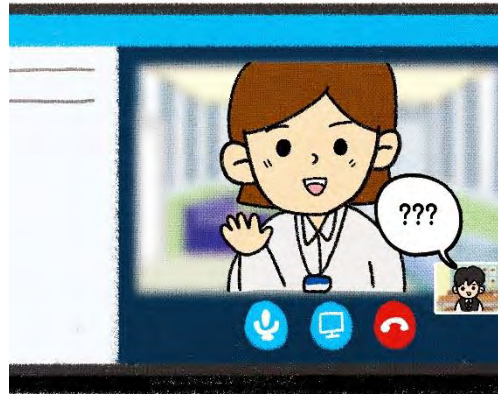
I think online video conferencing is a great tool for providing children with new opportunities to communicate and share their cultures.



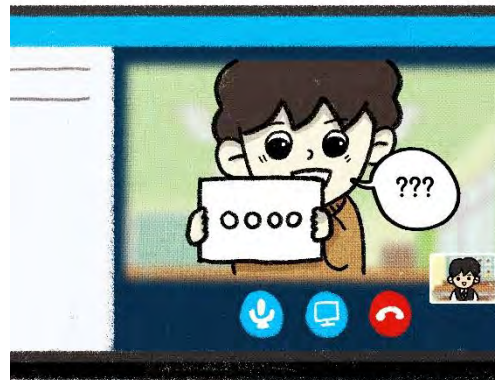
Joint online activities were a perfect alternative to our village's limited transportation as it provides the children with opportunities to meet and interact with their peers.



And we even did video job interviews.

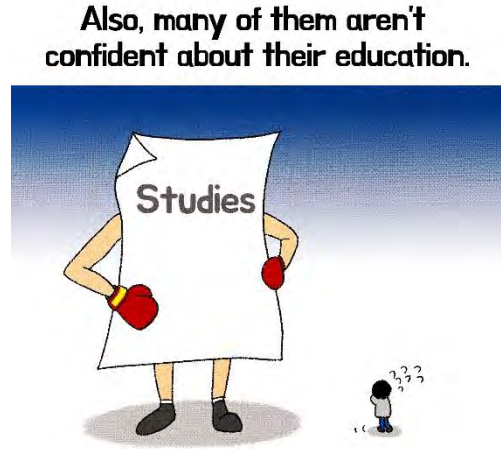
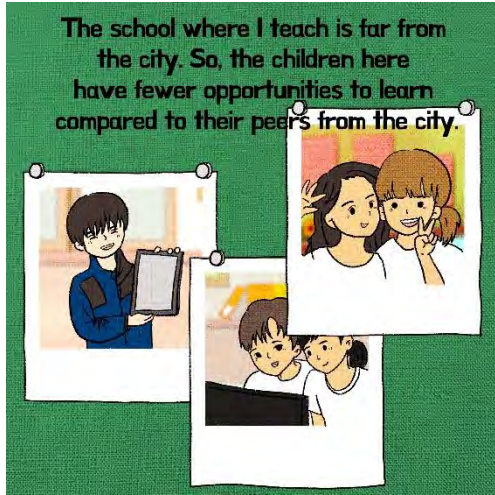


We also did English quizzes with other small schools.



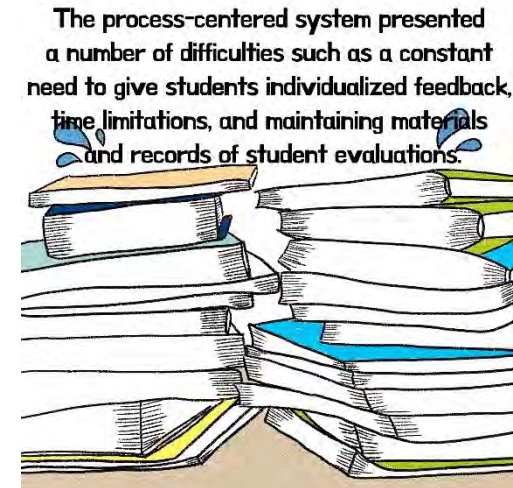
We introduced them to our country's culture and they responded in kind.





First, we replaced the school's result-centered grading system with a process-centered system.

Result-centered System	Process-centered System
- Focus on the final result	- Focus on the Procedure of learning
- Easy to rank from 1 to 100	- Focus on students' growth not rank
- Hard to see the procedure of thinking	- Easy to see students' sequence of thinking
- Efficient to judge students' ability	- Easy to see students' Various Competence
- Hard to see Various Competence	- Give students chances to improve their task
- Class activity < Result of test	- Class activity > Result of test



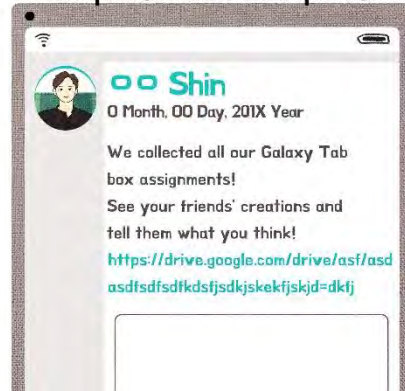
So, we addressed these issues by implementing an online learning management system.



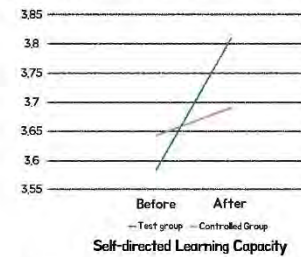
Now, the students can do group activities on their computers while I give them feedback in real time.



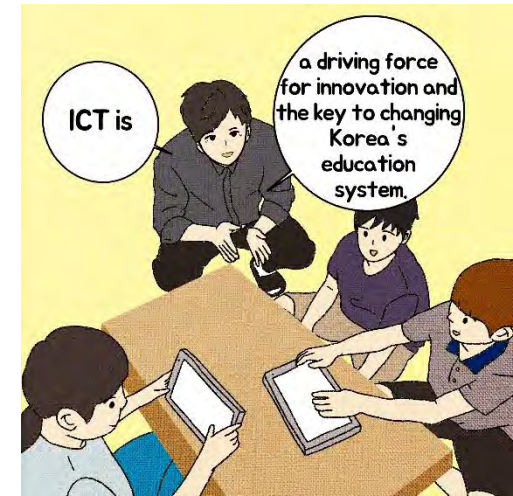
Students can compile their activities into portfolios and learn how to cooperate with their peers.



I was pleasantly surprised to learn that my students' self-directed learning capacity had grown substantially



since they began using the online learning management system.



Hi~
I'm Chorong Kim. And I'm Dajung Park.
We're in Elementary School 4th grade.



We're really interested
in solving environmental issues.



Unfortunately,
we have many subjects to study
and so many workbooks to complete.



But school classes are always exciting!
We learn and do a lot of new activities
on our tablets in class.



One day, our teacher said~



He gave us
a special assignment.

Up-cycling



What's
"Up-cycling?"



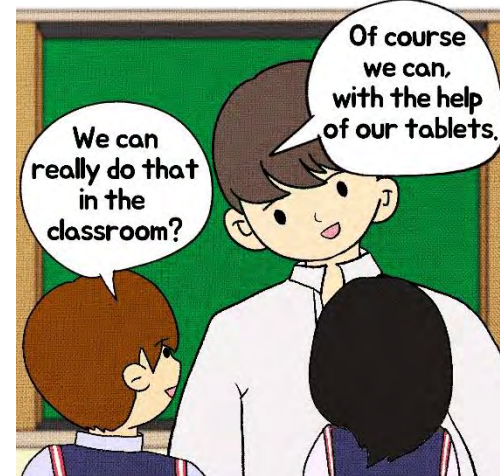
Up-cycling

Up-cycling is
the process
of transforming
unwanted products
into new products
of better quality.
Let's try designing
our own up-cycled
products!



We can
really do that
in the
classroom?

Of course
we can,
with the help
of our tablets.



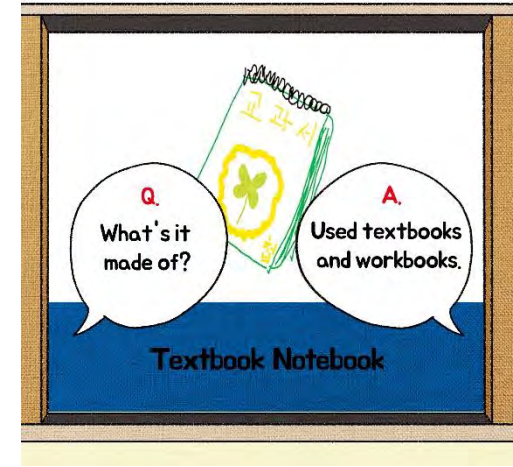
Divided into teams,
we made first drafts of our designs.



We used our tablets to create designs.



We looked up things we wanted to know right away on the internet.

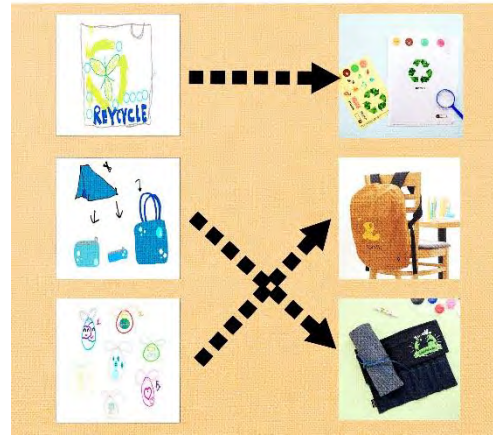


The project was fun and challenging as we had to use everything we've learned until now!

Awesome news!



It's really a dream come true!



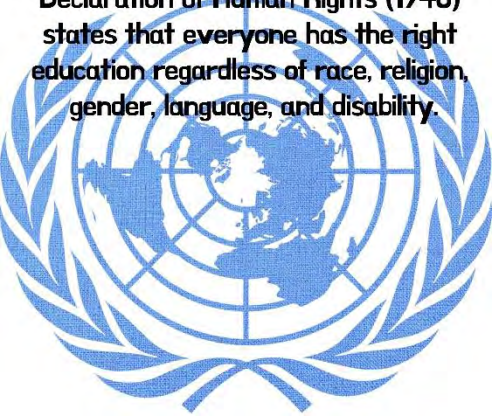
We learned that our work and efforts in the classroom can help a lot of people.



What's our next project? I can hardly wait!



The UN Universal Declaration of Human Rights (1948) states that everyone has the right education regardless of race, religion, gender, language, and disability.



Special needs learners face difficulties in communication and have limited access to education.



ICT is used as an effective communication and learning tool for people with special needs.

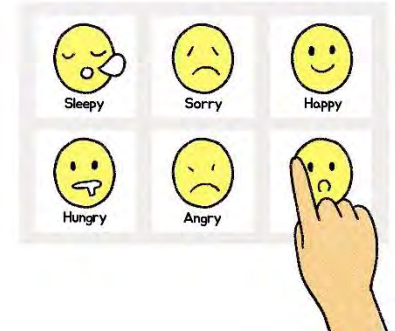


For instance, ICT supports AAC. AAC is a collective term for various augmentative and alternative methods of communication for special needs learners.



*AAC: Augmentative Alternative Communication

Physical movement, symbols, communication software, and hardware are common types of AAC.



In the classroom, students who have difficulty raising their hands to answer questions can press switches that make sounds or light up.



AAC apps can also be used to communicate with pictures or symbols.



Everyone, regardless of disability, has the right to education and freedom of opinion and expression.



ICT helps people with special needs communicate.

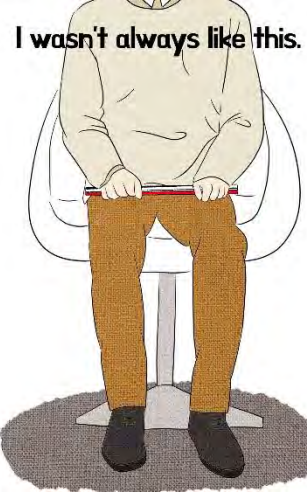


Additionally, special needs learners can learn and express their opinions.



6화-1

Hi!
I can't see well
enough to read like normal people.



When I was little I loved
reading books.



But as my vision grew worse,
I had to learn how to read in braille. It was
a tedious process that took a lot of patience.



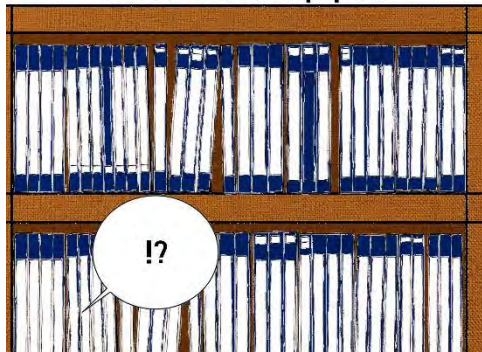
In college, I wanted to read research
papers that could help me study
and find career options, but unfortunately
only a handful of contents were
supported with voiceovers or braille.



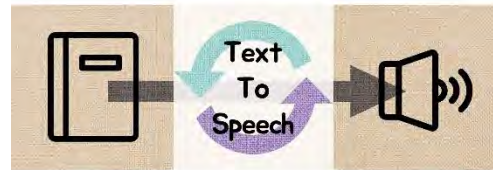
People like me are called
"dok-seo-so-wae-in" which means
"people who are isolated from the culture
of reading" in Korean.



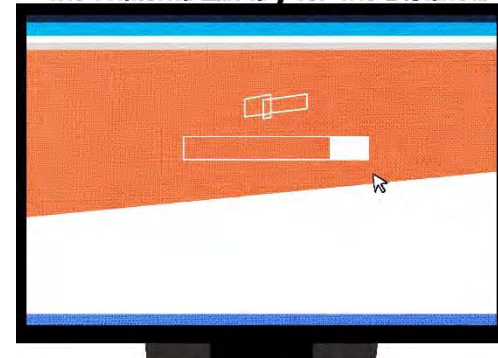
Then I learned that there's
a convenient way for people like me
who can't use conventional libraries
to read research papers.



It's called "Text To Speech."
It's an innovative service for people
with visual disabilities
that converts text to speech!

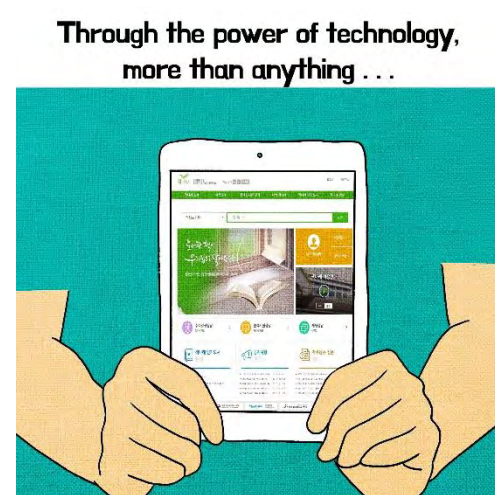
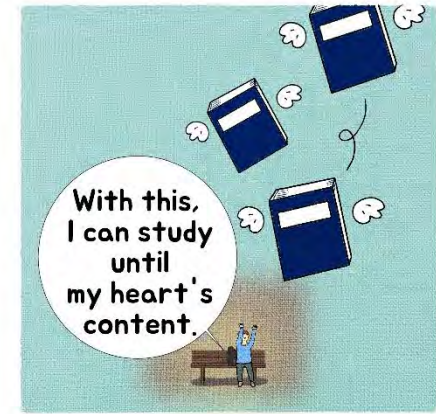
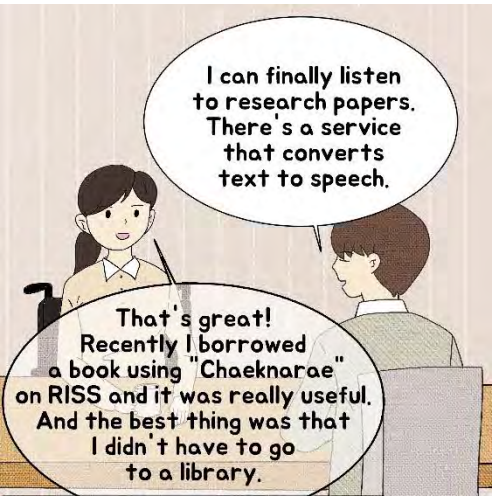


It can be accessed on RISS
(Research Information Sharing Service)
by users registered on RISS and
the National Library for the Disabled.

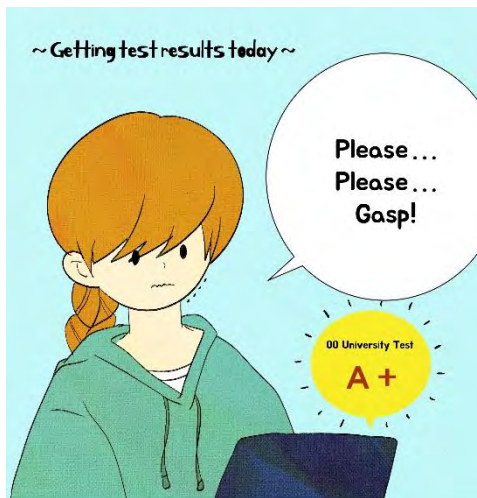
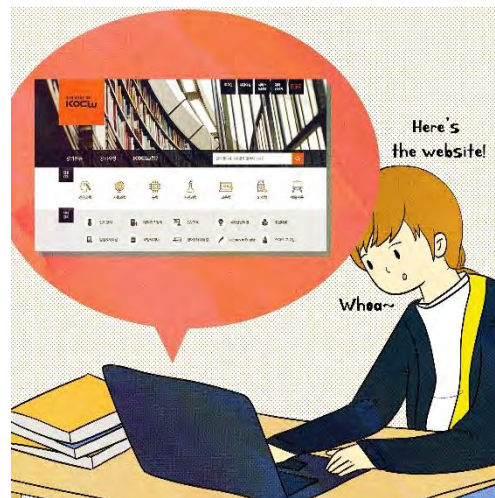
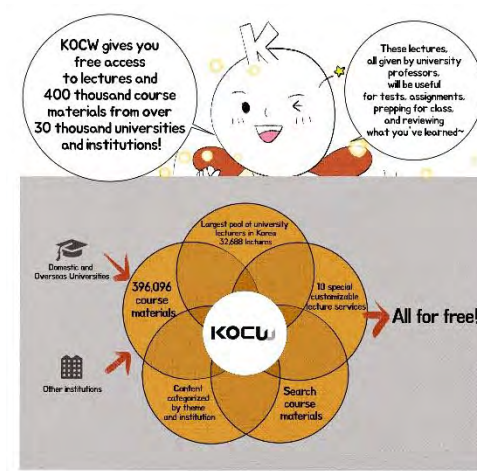
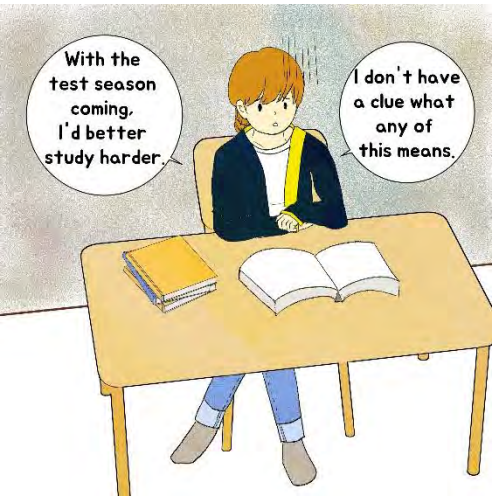


I'm reading . . .
no, listening to a research paper!

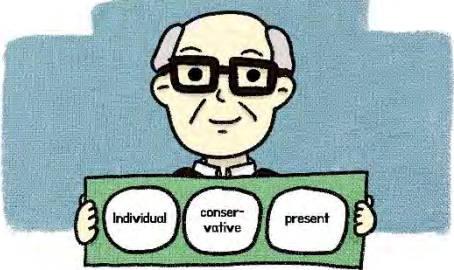




7화- 고등교육(KOCW)



Lortie (1975) devoted his career to overcoming individualism, conservatism, and presentism prevalent in academia by means of specialized teaching communities.



But promoting communication between teachers outside the classroom proved to be a challenging task at the time.



Today, with advancements in ICT, the academic landscape has changed.



Teachers across the nation have begun to share model lesson plans and teaching content online.



ICT has allowed teachers to create online-based specialized teaching communities where they can learn and grow together outside of the classroom.

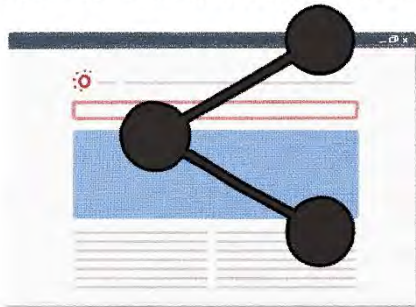


Among them is Chamssaem School, a nationwide teachers' community that creates and shares digital education content.

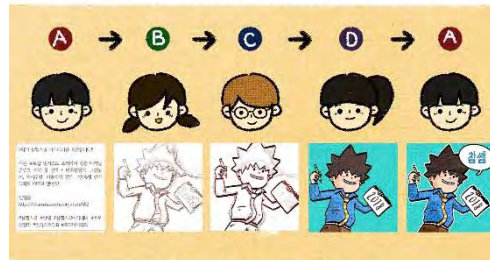


Chamssaem Content School

With over ninety active members, Chamssaem School helps teachers create and share their own education content online.



The content creation process happens exclusively online from start to finish.



Now it's possible to work together without meeting in person.

The content created here is available for teachers across the country to download and modify to their needs.



I look forward to seeing more online teacher communities like Chamssaem School.



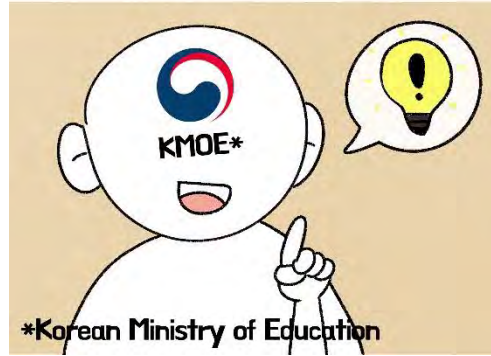
Korean teachers are recognized internationally for their expertise in ICT teaching.



The Korean Ministry of Education devised a new scheme to expand ICT education to developing countries.

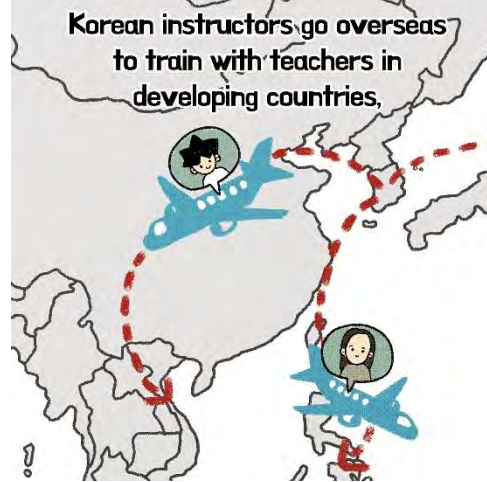


To help close the educational gap between developing and developed countries,



*Korean Ministry of Education

Today the Ministry of Education is operating "Innovative ICT-integrated Classroom Project" in fifteen developing countries in Asia, Africa, and Central and South America as part of its global e-Learning project.

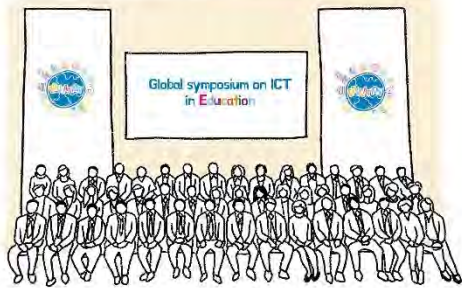


Korean instructors go overseas to train with teachers in developing countries.

... and vice versa.



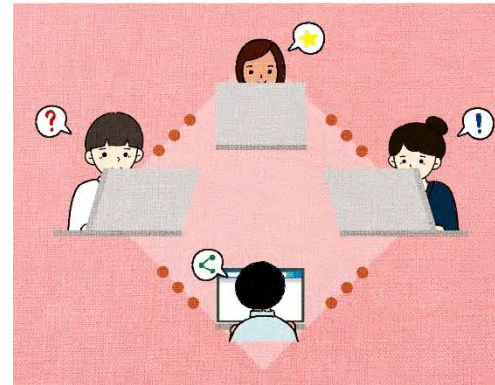
Also the Global Symposium on ICT in Education is annually held to help establish related policies and strengthen educational partnerships between countries.



Such efforts helped promote ICT education in fifteen developing countries, provided students greater access to information,



and strengthened teachers' expertise in ICT teaching.



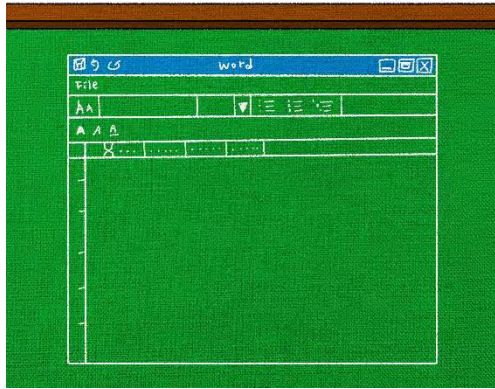
The "Innovative ICT-integrated Classroom Project" contributes to bridging the digital divide.



Schools that don't have enough electricity ...



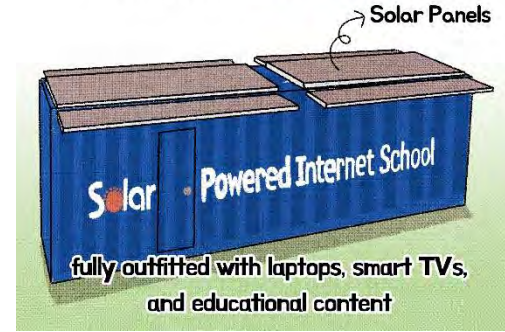
and teachers who draw word processor screens on the blackboard ...



became things of the past with the introduction of Korea's "Education Support Project through Solar-powered Internet School."



Since 2013, in partnership with Samsung Electronics, the Korean Ministry of Education established "Solar Schools"



in twelve countries in Africa as part of its global e-Learning project.



In Uganda, a joint training program is annually held for local teachers in partnership with a local university.



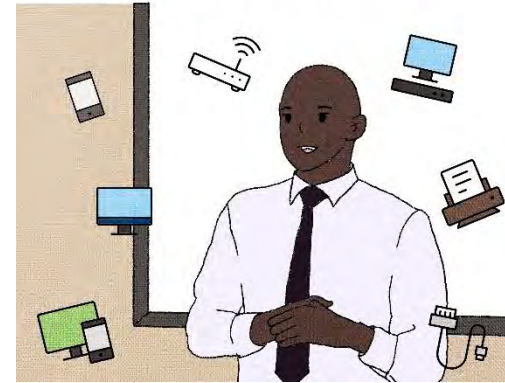
Through Sustainable energy, Solar Schools have given students access to computer education,



improved their commitment to learning and digital literacy,



and strengthened teachers' expertise in ICT education.



Solar Schools have become the cornerstone of sustainable ICT education in partner countries.

